UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/528,261	03/17/2000	Barry L. Hass	2204/A01	4222

			EXAMINER
34845	7590	09/15/2005	WILSON, ROBERT W

STEUBING AND MCGUINESS & MANARAS LLP
125 NAGOG PARK
ACTON, MA 01720

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/528,261	HASS, BARRY L.
	Examiner	Art Unit	
	Robert W. Wilson	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 August 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31,33-37,39-43 and 46-57* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31,33-37,39-43 and 46-57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-31, 33-37, 39-43, & 46-57 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Casey (U.S. Patent No.: 6,493,349) in view of Ylonen (U.S. Patent No.:

6,438,612) further in view of Mauger (U.S. Patent No.: 6,522,627).

Referring to claim 1, Casey teaches: a method of establishing an IP VPN tunnel or non label
switched domain between two private networks which are each MPLS or between a first label
switched and second label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The tunnel is established between a 1st VBR and a 2nd VBR or between a 1st and 2nd MPLS
networks or between a 1st and 2nd label switched domains per Figures 1-3 or per col. 6 line 15-
col. 8 line 35.

The 1st VBR router puts the MPL packet in the tunnel per Figures 1-3 or per col. 6 line 15-col. 8
line 35.

The 1st VBR router forward the packet through the tunnel per Figures 1-3 or per col. 6 line 15-
col. 8 line 35.

Casey does not expressly call for: encapsulation of the label stack or preserving of the label stack
but teaches tunnel.

Ylonen teaches: tunneling is encapsulation of the packet as well as preserving the packets
labeling per col.1 line 40-col. 2 line 67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add
the encapsulation and preservation of the packet label of Ylonen to the method of Casey in order
to perform tunneling.

The combination of Casey and Ylonen do not expressly call for: a label stack but teaches
tunneling and MPLS.

Mauger teaches: label stack per figure 2 or per col. 4 line 26-coll 5 line 8.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the label stack of Mauger to the method of the combination of Casey and Ylonen in order to perform MPLS switching.

Referring to claim 2, the combination teaches the method according to claim 1,

The combination does not expressly call for: wherein establishing a tunnel includes mapping a top label of the label stack to the tunnel.

Mauger teaches: wherein establishing a tunnel includes mapping a top label of the label stack to the tunnel per col. 4 line 26-col. 5 line 10 or Fig 2

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the label stack of Mauger to the method of the combination in order to perform MPLS switching.

Referring to claim 3, the combination teaches: the method of claim 1,
The combination does not expressly call for: wherein the tunnel is an IP tunnel

Casey teaches: wherein the tunnel is an IP tunnel per col. 3 line 40-col. 7 lines 13-21

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the IP tunnel of Casey to the method of combination in order to send data over an IP VPN.

Referring to claim 4, the combination teaches: the method of claim 3,
The combination does not expressly call for: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel

Casey teaches: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel (col. 3 line 40-col. 7 lines 13-21)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the GRE tunnel of Casey to the method of combination in order to send data over an IP VPN.

Referring to claim 5, the combination teaches the method of claim 4.

The combination does not expressly call for: wherein encapsulating the packet and label stack information includes providing a label switching protocol identifier such that the second label switched domain may identify the packet and label stack.

Mauger teaches: S bit or protocol identifier in the label stack per Fig 2 or col. 4 line 26-col. 5 line 10 or wherein encapsulating the packet and label stack information includes providing a label

switching protocol identifier such that the second label switched domain may identify the packet and label stack

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the label stack information of Mauger to the method of the combination in order to perform MPLS switching.

Referring to claim 6, the combination teaches: the method of claim 1,
The combination does not expressly call for: wherein the first label switched domain is a multiprotocol label switched domain

Casey teaches: wherein the first label switched domain is a multiprotocol label switched domain per Fig2 teaches VPN areas and Fig 3 teaches VPN areas can be MPLS or non MPLS in any order

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS of Casey to the method of combination in order to send data over an IP VPN

Referring to claim 7, the combination teaches: the method of claim 1,
The combination does not expressly call for: wherein the first label switched domain is a multiprotocol label switched domain

Casey teaches: wherein the 2nd label switched domain is a multiprotocol label switched domain per Fig2 teaches VPN areas and Fig 3 teaches VPN areas can be MPLS or non MPLS in any order

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS of Casey to the method of combination in order to send data over an IP VPN

Referring to claim 8, the combination teaches: the method of claim 1,
The combination does not expressly call for: wherein the first label switched domain is a MPLS and the second is a MPLS label switched domain.

Casey teaches: wherein the 1st and 2nd is a MPLS switched domain Fig2 teaches VPN areas and Fig 3 teaches VPN areas can be MPLS or non MPLS in any order

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS switched domains of Casey to the method of combination in order to send data over an IP VPN

Referring to claim 9, the combination teaches the method according to claim 8,

The combination does not expressly call for: wherein encapsulating the packet and the label stack information includes proving a MPLS identifier in the encapsulated packet such that the second label switched domain may identify the packet and label stack.

Mauger teaches: wherein encapsulating the packet and the label stack information includes proving a MPLS identifier in the encapsulated packet such that the second label switched domain may identify the packet and label stack per Fig 2 or per col. 4 line 26-col. 5 line 10.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS identifier of Mauger to the method of combination in order perform MPLS switching.

Referring to claims 10-18, it is within the level of one skilled in the art at the time of the invention to implement the limitations in claims 1-9 in logic in order to create a device per claims 10-18 respectively.

Referring to claims 19-27, it is within the level of one skilled in the art at the time of the invention to implement the limitations in claims 1-9 as a computer instructions in order to create a computer program per claims 19-27 respectively. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the computer instructions on a computer program product in order for the instructions to be executable on a processor.

Referring to claim 28, Casey teaches: a method of establishing an IP VPN tunnel or non label switched domain between two private networks which are each MPLS or between a first label switched and second label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The tunnel is established between a 1st VBR and a 2nd VBR or between a 1st and 2nd MPLS networks or between a 1st and 2nd label switched domains per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 2nd VBR router receives the MPLS packet per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 2nd VBR router forwa4ds the packet to the 2nd MPLS or 2nd label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

Casey does not expressly call for: encapsulation of the label stack or preserving of the label stack or de-encapsulating the packet but teaches tunneling.

Ylonen teaches: tunneling is encapsulation of the packet as well as preserving the packets labeling as well as performing the inverse of encapsulating or de-encapsulating per col. 1 line 40-col. 2 line 67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the encapsulation and preservation of the packet label and de-encapsulating of Ylonen to the method of Casey in order to perform tunneling.

The combination of Casey and Ylonen do not expressly call for: a label stack but teaches tunneling and MPLS.

Mauger teaches: label stack per figure 2 or per col. 4 line 26-coll 5 line 8.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the label stack of Mauger to the method of the combination of Casey and Ylonen in order to perform MPLS switching.

Referring to claim 29, the combination teaches: the method of claim 28,
The combination does not expressly call for: wherein the first label switched domain is a MPLS and the second is a MPLS label switched domain.

Casey teaches: wherein the 1st and 2nd is a MPLS switched domain Fig2 teaches VPN areas and Fig 3 teaches VPN areas can be MPLS or non MPLS in any order

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS switched domains of Casey to the method of combination in order to send data over an IP VPN

Referring to claim 30, the combination teaches: the method of claim 28,
The combination does not expressly call for: wherein the tunnel is an IP tunnel

Casey teaches: wherein the tunnel is an IP tunnel per col. 3 line 40-col. 7 lines 13-21

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the IP tunnel of Casey to the method of combination in order to send data over an IP VPN.

Referring to claim 31, the combination teaches: the method of claim 30,
The combination does not expressly call for: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel

Casey teaches: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel (col. 3 line 40-col. 7 lines 13-21)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the GRE tunnel of Casey to the method of combination in order to send data over an IP VPN.

Referring to claim 33, the combination teaches the method according to claim 29,

The combination does not expressly call for: wherein encapsulating the packet and the label stack information includes proving a MPLS identifier in the encapsulated packet such that the second label switched domain may identify the packet and label stack.

Mauger teaches: wherein encapsulating the packet and the label stack information includes proving a MPLS identifier in the encapsulated packet such that the second label switched domain may identify the packet and label stack per Fig 2 or per col. 4 line 26-col. 5 line 10.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS identifier of Mauger to the method of combination in order perform MPLS switching.

Referring to claim 34, Casey teaches: a device for establishing an IP VPN tunnel or non label switched domain between two private networks which are each MPLS or between a first label switched and second label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The tunnel is established between a 1st VBR and a 2nd VBR or between a 1st and 2nd MPLS networks or between a 1st and 2nd label switched domains per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 2nd VBR router receives the MPLS packet per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 2nd VBR router forwards the packet to the 2nd MPLS or 2nd label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

Casey does not expressly call for: encapsulation of the label stack or preserving of the label stack or de-encapsulating the packet but teaches tunneling.

Ylonen teaches: tunneling is encapsulation of the packet as well as preserving the packets labeling as well as performing the inverse of encapsulating or de-encapsulating per col.1 line 40-col. 2 line 67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the encapsulation and preservation of the packet label and de-encapsulating of Ylonen to the method of Casey in order to perform tunneling.

The combination of Casey and Ylonen do not expressly call for: a label stack but teaches tunneling and MPLS.

Mauger teaches: label stack per figure 2 or per col. 4 line 26-coll 5 line 8.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the label stack of Mauger to the method of the combination of Casey and Ylonen in order to perform MPLS switching.

Referring to claim 35, the combination teaches: the method of claim 34,

The combination does not expressly call for: wherein the tunnel is an IP tunnel

Casey teaches: wherein the tunnel is an IP tunnel per col. 3 line 40-col. 7 lines 13-21

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the IP tunnel of Casey to the device of combination in order to send data over an IP VPN.

Referring to claim 36, the combination teaches: the method of claim 35,
The combination does not expressly call for: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel

Casey teaches: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel (col. 3 line 40-col. 7 lines 13-21)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the GRE tunnel of Casey to the device of combination in order to send data over an IP VPN.

Referring to claim 37, the combination teaches: the method of claim 34,
The combination does not expressly call for: wherein the first label switched domain is a MPLS and the second is a MPLS label switched domain.

Casey teaches: wherein the 1st and 2nd is a MPLS switched domain Fig2 teaches VPN areas and Fig 3 teaches VPN areas can be MPLS or non MPLS in any order

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS switched domains of Casey to the device of combination in order to send data over an IP VPN

Referring to claim 39, the combination teaches the method according to claim 37,

The combination does not expressly call for: wherein encapsulating the packet and the label stack information includes proving a MPLS identifier in the encapsulated packet such that the second label switched domain may identify the packet and label stack.

Mauger teaches: wherein encapsulating the packet and the label stack information includes proving a MPLS identifier in the encapsulated packet such that the second label switched domain may identify the packet and label stack per Fig 2 or per col. 4 line 26-col. 5 line 10.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS identifier of Mauger to the method of combination in order perform MPLS switching.

Referring to claims 40-43, it is within the level of one skilled in the art at the time of the invention to implement the limitations in claims 1, 8,3,4, & 9 as a computer instructions in order to create a computer program per claims 40-43 respectively. It would have been obvious to one

of ordinary skill in the art at the time of the invention to store the computer instructions on a computer program product in order for the instructions to be executable on a processor

Referring to claim 46, Casey teaches: a method of establishing an IP VPN tunnel or non label switched domain or a communication system between two private networks which are each MPLS or between a first label switched and second label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 1st VBR or egress device is connected to a first MPLS or 1st label switched domain via an IP VPN tunnel or non-label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 1st VBR receives the MPLS packet from the first MPLS or 1st label switched domain per

The 2nd VBR router receives the MPLS packet per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The MPLS packet is forwarded by the 1st VBR or egress device to the 2nd VBR or ingress device of the 2nd MPLS or 2nd label switched domain. per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The tunnel information is stripped by the second VBR per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The MPLS packet is forwarded by the 2nd VBR per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

Casey does not expressly call for: encapsulation of the label stack or preserving of the label stack or de-encapsulating the packet but teaches tunneling.

Ylonen teaches: tunneling is encapsulation of the packet as well as preserving the packets labeling as well as performing the inverse of encapsulating or de-encapsulating per col.1 line 40-col. 2 line 67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the encapsulation and preservation of the packet label and de-encapsulating of Ylonen to the method of Casey in order to perform tunneling.

Referring to claim 47, the combination teaches: the method of claim 46,
The combination does not expressly call for: wherein the first label switched domain is a MPLS and the second is a MPLS label switched domain.

Casey teaches: wherein the 1st and 2nd is a MPLS switched domain Fig2 teaches VPN areas and Fig 3 teaches VPN areas can be MPLS or non MPLS in any order

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS switched domains of Casey to the communication system of combination in order to send data over an IP VPN

Referring to claim 48, the combination teaches: the method of claim 46,
The combination does not expressly call for: wherein the tunnel is an IP tunnel

Casey teaches: wherein the tunnel is an IP tunnel per col. 3 line 40-col. 7 lines 13-21

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the IP tunnel of Casey to the communication system of combination in order to send data over an IP VPN

Referring to claim 49, the combination teaches: the method of claim 48,
The combination does not expressly call for: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel

Casey teaches: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel (col. 3 line 40-col. 7 lines 13-21)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the GRE tunnel of Casey to the communication system of combination in order to send data over an IP VPN.

Referring to claim 50, Casey teaches: executing an IP VPN or tunnel protocol between a 1st VBR and 2nd VBR for interconnecting between two private MPLS or a 1st and 2nd label switch domains per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 1st VBR creates the IP VPN tunnel for transfer of the MPLS packet (means)

Casey does not expressly call for: encapsulating the payload or the protocol identifier for identifying the label switched protocol.

Ylonen teaches: encapsulation per col. 1 line 40-col. 2 line 67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the encapsulation of Ylonen to the method of Casey in order create a tunnel.

The combination of Ylonen and Casey do not expressly call for: a protocol indicator

Mauger teaches: an S bit per Fig 2 or protocol indicator

It would have been obvious to one of ordinary skill in the art at the time of the invention to add
the protocol indicator of Mauger to the method of the combination of Ylonen and Casey in order
to perform MPLS switching.

It is within the level of one skilled in the art at the time of the invention to implement the method
limitations state above as a computer program. It would have been obvious to one of ordinary
skill in the art at the time of the invention to store the computer program on a computer readable
medium in order to be executable on a processor.

Referring to claim 51, the combination teaches: the computer program product of claim 50,
The combination does not expressly call for: wherein the label switched protocol is MPLS

Casey teaches: wherein the the label switched protocol is MPLS per Fig2 teaches VPN areas and
Fig 3 teaches VPN areas can be MPLS or non MPLS in any order

It would have been obvious to one of ordinary skill in the art at the time of the invention to add
the MPLS switched domains of Casey to the method of computer program product of the
combination in order to send data over an IP VPN

Referring to claim 52, the combination teaches: the computer program product of claim 50,
The combination does not expressly call for: wherein the tunnel is a Generic Routing
Encapsulation (GRE) tunnel

Casey teaches: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel (col. 3 line
40-col. 7 lines 13-21)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add
the GRE tunnel of Casey to the computer program product of combination in order to send data
over an IP VPN.

Referring to claim 53, Casey teaches: a system for establishing an IP VPN tunnel or non label
switched domain or a communication system between two private networks which are each
MPLS or between a first label switched and second label switched domain per Figures 1-3 or per
col. 6 line 15-col. 8 line 35.

The 1st VBR or egress device is connected to a first MPLS or 1st label switched domain via an IP
VPN tunnel or non-label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 1st VBR receives the MPLS packet from the first MPLS or 1st label switched domain per

The 2nd VBR router receives the MPLS packet per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The MPLS packet is forwarded by the 1st VBR or egress device to the 2nd VBR or ingress device
of the 2nd MPLS or 2nd label switched domain. per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The tunnel information is stripped by the second VBR per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The MPLS packet is forwarded by the 2nd VBR per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

Casey does not expressly call for: encapsulation of the label stack or preserving of the label stack or de-encapsulating the packet but teaches tunneling.

Ylonen teaches: tunneling is encapsulation of the packet as well as preserving the packets labeling as well as performing the inverse of encapsulating or de-encapsulating per col.1 line 40-col. 2 line 67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the encapsulation and preservation of the packet label and de-encapsulating of Ylonen to the system of Casey in order to perform tunneling.

Referring to claim 54, the combination teaches: the method of claim 53,
The combination does not expressly call for: wherein the first label switched domain is a MPLS and the second is a MPLS label switched domain.

Casey teaches: wherein the 1st and 2nd is a MPLS switched domain Fig2 teaches VPN areas and Fig 3 teaches VPN areas can be MPLS or non MPLS in any order

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS switched domains of Casey to the communication system of combination in order to send data over an IP VPN

Referring to claim 55, the combination teaches: the method of claim 53,
The combination does not expressly call for: wherein the tunnel is an IP tunnel

Casey teaches: wherein the tunnel is an IP tunnel per col. 3 line 40-col. 7 lines 13-21

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the IP tunnel of Casey to the communication system of combination in order to send data over an IP VPN

Referring to claim 56, the combination teaches: the method of claim 55,
The combination does not expressly call for: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel

Casey teaches: wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel (col. 3 line 40-col. 7 lines 13-21)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the GRE tunnel of Casey to the communication system of combination in order to send data over an IP VPN.

Referring to claim 57, Casey teaches: a system per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

A 1st MPLS or 1st label switched domain which inherently is connected to a plurality of MPLS devices which is connected to a 1st VBR or egress device per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

A 2nd MPLS or 2nd label switched domain for forwarding label switched packets wherein the 2nd MPLS is inherently connected to MPLS devices including a 2nd VBR router or ingress device per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

An IP VPN or non-label switched domain having BNN or a plurality of forwarding devices and connected to a 1st VBR or egress device of the first label switched domain to the 2nd VBR or ingress device of the 2nd label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 1st VBR or egress device establishes a tunnel from the 1st MPLS or first label switched domain to the 2nd VBR or ingress device of the 2nd MPLS or second label switched domain across the IP VPN or non-label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 1st VBR or egress device creates the tunnel per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 1st VBR or egress device forwards the MPLS packet over the tunnel to the 2nd VBR or ingress device of the 2nd MPLS or 2nd label switched domain per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The 2nd VBR receives the tunneled MPLS packet per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The tunnel information is stripped by the second VBR per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

The MPLS packet is forwarded by the 2nd VBR per Figures 1-3 or per col. 6 line 15-col. 8 line 35.

Casey does not expressly call for: encapsulation of the label stack or preserving of the label stack or de-encapsulating the packet but teaches tunneling.

Ylonen teaches: tunneling is encapsulation of the packet as well as preserving the packets labeling as well as performing the inverse of encapsulating or de-encapsulating per col.1 line 40-col. 2 line 67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the encapsulation and preservation of the packet label and de-encapsulating of Ylonen to the system of Casey in order to perform tunneling.

Response to Amendment

3.   Applicant's arguments with respect to claims 1-31, 33-37, 39-43, & 46-57 have been

considered but are moot in view of the new ground(s) of rejection.

According to applicant's arguments the invention was conceived on 5/14/99. All of the

references cited in this rejection were filed or conceived before 5/14/99. Please refer to the
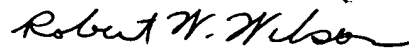
above rejection for details.

Conclusion

4.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075.

The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chau T. Nguyen can be reached on 571/272-3126. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

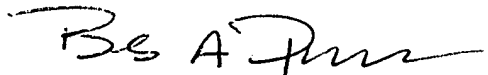system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert W Wilson

Examiner

Art Unit 2661

RWW

9/9/05

BOB PHUNKULH

PRIMARY EXAMINER